

# Model **MGD-28M** Electromagnetic Sensor



Model List	Operation Configuration
<b>MGD-28M</b>	Normally open
<b>MGD-28M1</b>	Normally closed

## Application

- Positioning of the machine or the like using a magnet
- Position detection of metal pallets or moving tables using magnets
- Detection of the position of the multi-storey car park, etc.

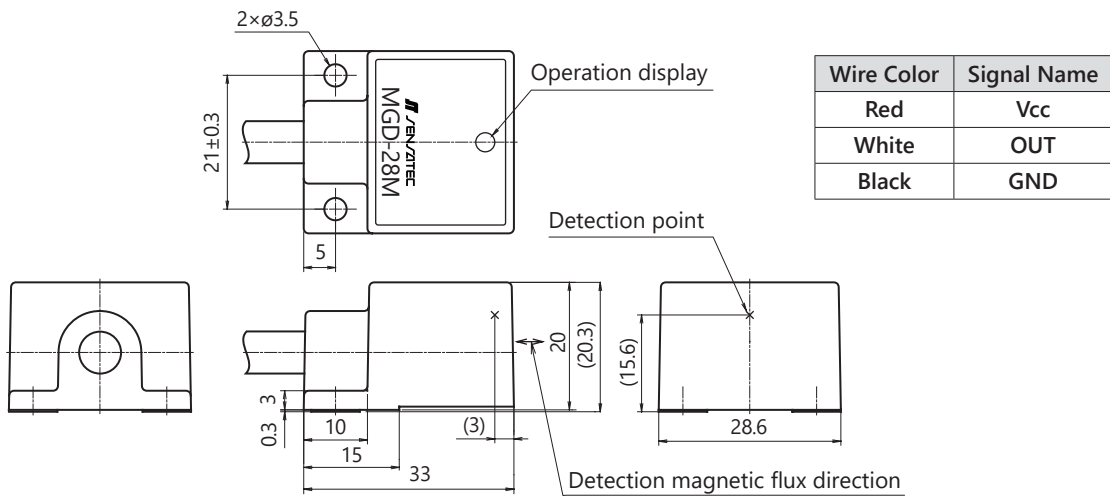
## Features

- Molded type that can be used safely even in places where water may splash.
- Both N-pole and S-pole can be detected.

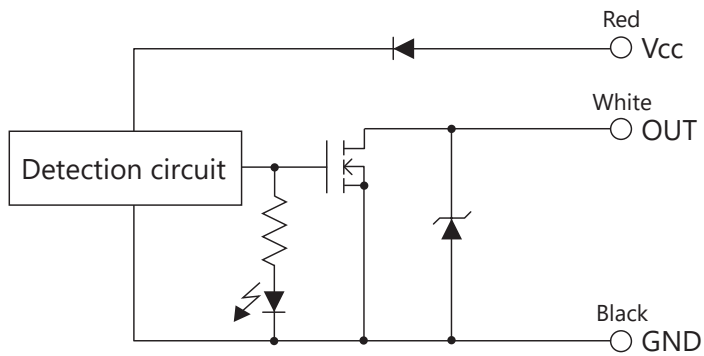
## Rating / Performance

Model	MGD-28M	MGD-28M1
Detection Surface	Front side detection	
Detection Sensitivity	Detection : 3.5 mT (35 G) or more (At the standard point), Reset : 0.3 mT (3 G) or less (At the standard point)	
Power Voltage	12 V to 24 V DC (Operating voltage range : 10 V to 30 V DC)	
Power Consumption	10 mA DC or less	
Output	N-channel MOSFET Open drain 30 V DC, 100 mA DC or less	
Output Residual Voltage	1 V DC or less (Load current 100 mA DC)	
Operation Status	Normally open (Output ON at magnetic detection)	Normally closed (Output OFF at magnetic detection)
Operation Indication	Red LED (Lit when On output)	
Response Frequency	400 Hz or more	
Temperature Range	-25 to 70 °C (-25 to 70 °C during storage) (Without dew condensation or freezing)	
Humidity Range	98 % RH or less (98 % RH or less during storage) (Without dew condensation)	
Breakdown Voltage	1000 V AC, 50/60 Hz for 1 min (Between live parts and casing)	
Insulation Resistance	50 MΩ or more, at 500 V DC megger (Between live parts and casing)	
Vibration Resistance	Durability : 10 to 55 Hz, Double amplitude: 1.5 mm in X-, Y-, and Z-direction, each 2 hours (Device not powered)	
Shock Resistance	Durability : 500 m/s <sup>2</sup> (Approx. 50 G) in X-, Y-, and Z-direction, each 3 times (Device not powered)	
Ingress Protection	IP67	
Case Material	PBT reinforced with glass-fiber	
Cable	ø6.1, 3-core round cord of 0.5 mm <sup>2</sup> and 1 m in length (VCTF)	
Weight	Approx. 71 g	

## Dimensions



## Output Circuit



## Reference Detection Distances

Model	Material	Detection Distance	Reset Distance
<b>MG10-10-T</b>	Neodymium	Approx. 34 mm	Approx. 35 mm
<b>MG10-10-F</b>	Ferrite	Approx. 21 mm	Approx. 22 mm

\*For other precautions, refer to "General Precautions" for electromagnetic sensors.